

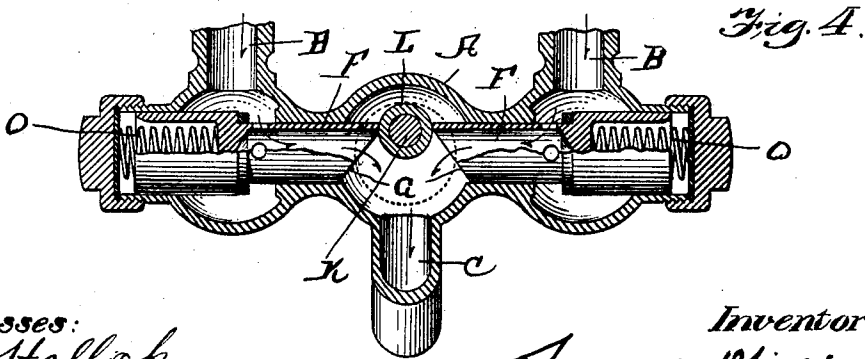
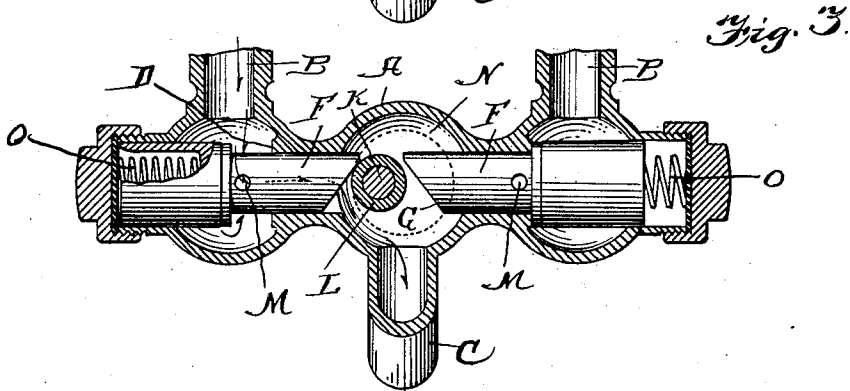
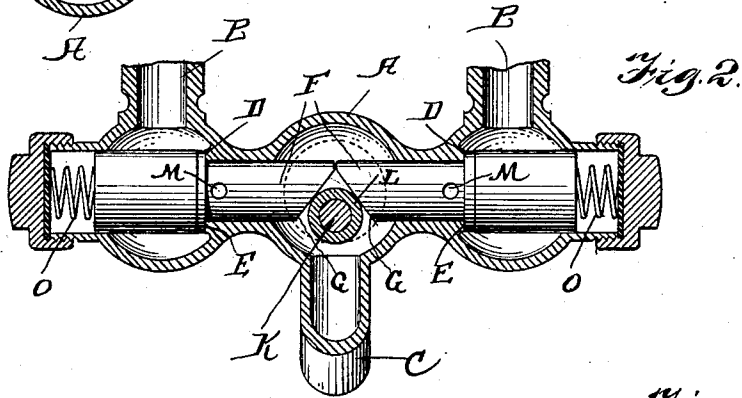
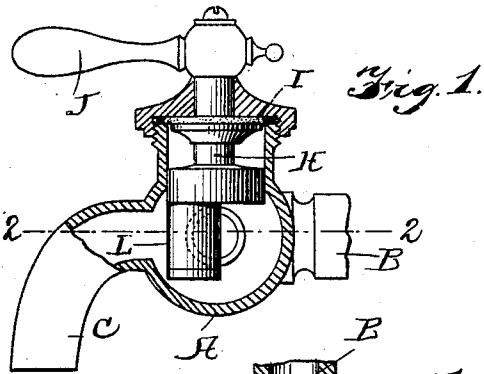
No. 763,826.

PATENTED JUNE 28, 1904.

S. S. WILLIAMSON.
TWO-WAY FAUCET.

APPLICATION FILED JAN. 4, 1904.

NO MODEL.



Witnesses:
H. B. Hallack
L. W. Morrison

Inventor:
Samuel Williamson

UNITED STATES PATENT OFFICE.

SAMUEL S. WILLIAMSON, OF PHILADELPHIA, PENNSYLVANIA.

TWO-WAY FAUCET.

SPECIFICATION forming part of Letters Patent No. 763,826, dated June 28, 1904.

Application filed January 4, 1904. Serial No. 187,604. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL S. WILLIAMSON, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a certain new and useful Improvement in Two-Way Faucets, of which the following is a specification.

My invention relates to a new and useful improvement in two-way faucets, and has for its object to provide a two-way faucet adapted to be actuated by one handle, whereby the valves controlling the two inlets may be removed from their seats separately or both together, according to the position in which the handle is placed.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a vertical section through the center of the faucet; Fig. 2, a horizontal section through the faucet on the line 2 2 of Fig. 1, showing the parts in their normal positions, both valves closed; Fig. 3, a similar view to Fig. 2, showing one of the valves open; Fig. 4, a similar view to Figs. 2 and 3, showing both valves open.

My invention relates to two-way faucets, and particularly to the bath-tub faucets for admitting hot and cold water.

A represents the body of the faucet, in which lead the two inlets B.

C is the outlet, located in between the two inlets.

D represents the two valves controlling the passage between the inlets and the outlet, these valves adapted to be normally in contact with the valve-seat E.

F represents the valve-stems, the inner ends of which are beveled, as indicated at G, in a plane at an angle to a line drawn longitudinally through the valve-stems.

H is a crank-shaft extending upward through the body through a suitable stuffing-

box I, a handle J being secured upon the upper end of the crank-shaft.

K is the wrist-pin of the crank-shaft, which lies normally in the center between the two inner ends of the valve-stems F. This wrist-pin does not affect the valve-stems on account of the bevel formed upon the inner ends of said stems. Therefore when the wrist-pin K is in the center, lying within the angle formed by the bevel upon the inner ends of the valve-stems, both valves are closed, as shown in Fig. 2; but should the handle J be turned toward the left the wrist-pin K will act upon the beveled end of the left-hand valve-stem so as to force the valve connected to said valve-stem from its seat, and thereby allow the water from the left-hand inlet to pass to the outlet C. Should the handle J be turned to the right, the right-hand valve would be operated, and should the handle J be turned one-half of a revolution, as shown in Fig. 4, the wrist-pin will then be in such a position as to hold both valves removed from their seats, so as to allow the water from both inlets to pass to the outlet, and of course the wrist-pin can be moved to any of the intermediate positions to regulate the supply from either one of the inlets—as, for instance, very little water may be allowed to pass from either one of the inlets into the outlet, or both valves may be so removed from their seats that the full flow may pass from one inlet and very little water pass from the other inlet, so that the hot and cold water can be mixed as desired.

In the drawings I have shown the wrist-pin surrounded by a roller L. While this facilitates the movement and operation of the faucet, it is not essentially necessary and may be dispensed with, if desired, and in the drawings I have shown the valve-stems made tubular, the water passing from the inlets through openings M to the interior of the valve-stems and through the valve-stems to the central chamber N, which is connected with the outlet C; but of course this construction could be varied, if desired—as, for instance, the valve-stem could be provided with passages or channels upon the outside through which the water could pass when the valves D are forced from off their seats.

O represents springs arranged behind each valve-stem adapted to force the valves upon their seats.

Of course I do not wish to be limited to the exact construction here shown, as slight modifications could be made without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is—

1. In a two-way faucet, two inlets, a common outlet, two valve-seats, one arranged between each inlet and outlet, two valves adapted to normally contact said valve-seats, valve-stems connected to said valves extending outward from the center in opposite directions, the opposing ends of said valve-stems being inclined to a line drawn longitudinally through the valve-stems, a crank-shaft, a handle secured upon the upper end of the crank-shaft, the wrist-pin of the crank-shaft adapted to normally lie within the angle formed by the beveled ends of the valve-stems so as not to affect said valve-stems, but said valve-stems adapted to be removed from the seats by the turning of the crank-shaft, and springs tending to force the valves against their seats, as specified.

2. In a two-way faucet, a body, two inlets opening into the body, an outlet opening from the body in between the two inlets, valve-seats formed upon the body, one between each inlet, and the outlet-valves adapted to normally contact said valve-seats, springs tending to force said valves upon the seats, valve-stems connected to the valves and extending from the center of the body outward to the valves in each direction, the inner or opposing ends of the valve-stems being inclined to a line drawn longitudinally through the valve-stems, a crank-shaft extending upward through the body, a handle secured upon the upper end of the crank-shaft, a wrist-pin connected to the crank-shaft, said wrist-pin adapted to normally lie within the angle formed by the beveled ends of the valve-stems so as not to affect the valves, but the right-hand valve adapted to be removed from its seat when the crank-shaft is turned toward the valve, and

the left-hand valve removed from its seat when the crank-shaft is turned toward the left, and both valves held removed from their seats upon one-half revolution of the crank-shaft, as specified.

3. In a two-way faucet, a body portion, two inlets opening into the body portion, a central chamber located in the body portion between the two inlets, an outlet-opening from the central chamber, two valve-seats formed with the body, one interposed between each inlet and the outlet, two valves adapted to normally contact the valve-seats, springs tending to force said valves upon their seats, two tubular valves extending outward in each direction from the center chamber and connected at their outer ends to the valves, the inner ends of said valve-stems being inclined to a line drawn longitudinally through the valve-stems, a crank-shaft extending upward from the central chamber through a suitable stuffing-box, a handle secured upon the upper end of the crank-shaft, a wrist-pin connected to the lower end of the crank-shaft, a roller surrounding the wrist-pin, said roller adapted to normally lie within the angle formed by the two beveled faces of the valve-stems so as not to affect the valves, but one of the valves adapted to be removed from its seat to a more or less extent when the crank-shaft is turned in one direction to a more or less extent, and the other valve adapted to be removed from its seat to a more or less extent when the crank-shaft is turned in the opposite direction, and both valves adapted to be held removed from their seats when the crank-shaft is turned one-half revolution, the tubular valve-stems provided with openings extending from the interior to the exterior near the valves, as specified.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

SAMUEL S. WILLIAMSON.

Witnesses:

MARY E. HAMER,
L. W. MORRISON.